Walzem Road (FM 1976) Operations & Access Management Analysis

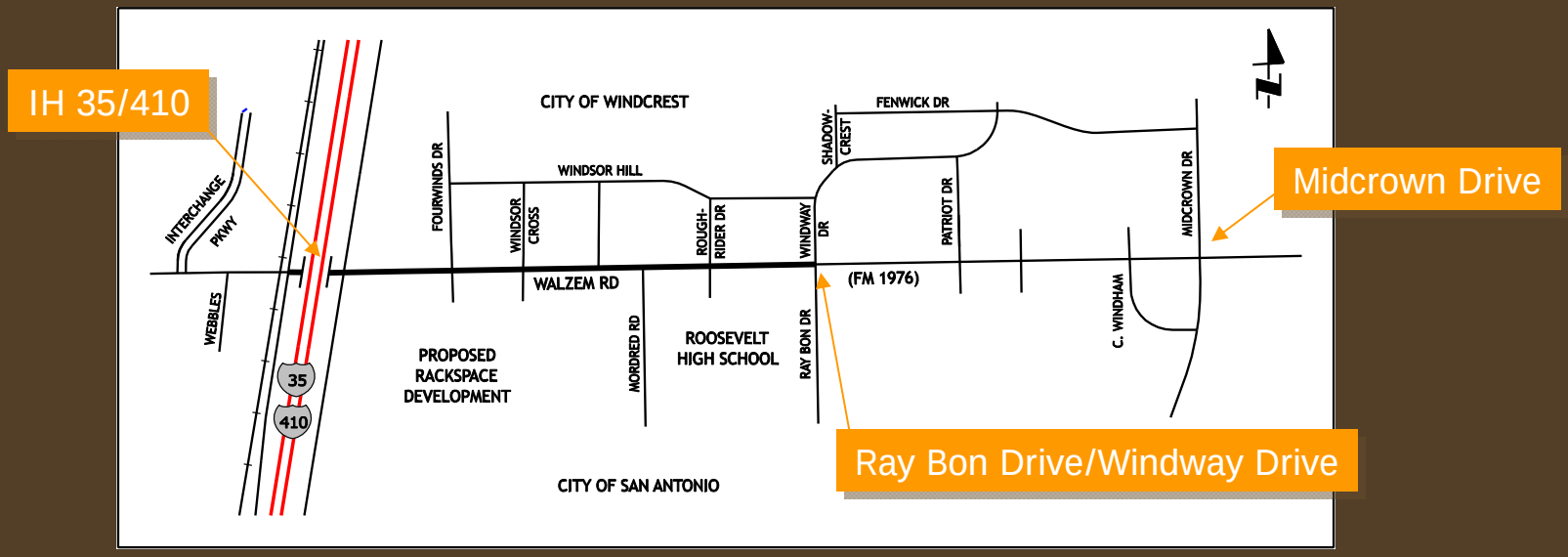
Texas Department of Transportation
San Antonio District

City of Windcrest

Rodriguez Transportation Group

Walzem Road Study Area

- Study Area
  - IH 35/410 – Midcrown Drive
- Project Area
  - IH 35/410 – Ray Bon Drive/Windway Drive



Study Scope

- Evaluate traffic crash history and develop an access management alternative to improve safety, operations and enhance corridor
- Evaluate existing operations and potential access management and capacity improvements

Walzem Road Characteristics

- Classified as a Principal Arterial by the San Antonio-Bexar County MPO and City of San Antonio Major Thoroughfare Plan

- Major east-west thoroughfare for north-east Bexar County & critical for mobility

Walzem Road Characteristics

- Provides access to residential and commercial developments and Roosevelt High School
- Major intersections include IH 35/410, Fourwinds Drive, Ray Bon/Windway and Midcrown Drive

Walzem Road Operations

- 7-lane facility with 3 lanes in each direction and a center two-way left-turn lane from IH 35/410 to Ray Bon/Windway
- 5-lane facility east of Ray Bon/Windway
- Four traffic signals in project area (San Antonio system)
  - IH 35/410
  - Fourwinds Drive
  - Mordred Road
  - Ray Bon Drive/Windway Drive

Walzem Road Operations

- Currently serves 40,000 vehicles per day
- Traffic volumes are expected to increase with Rackspace and new development

Traffic Safety Issues

- Traffic crashes
- Improper use of center lane
- Left turns from streets/driveways “taking chances”
- Frequent head-on conflicts in center lane

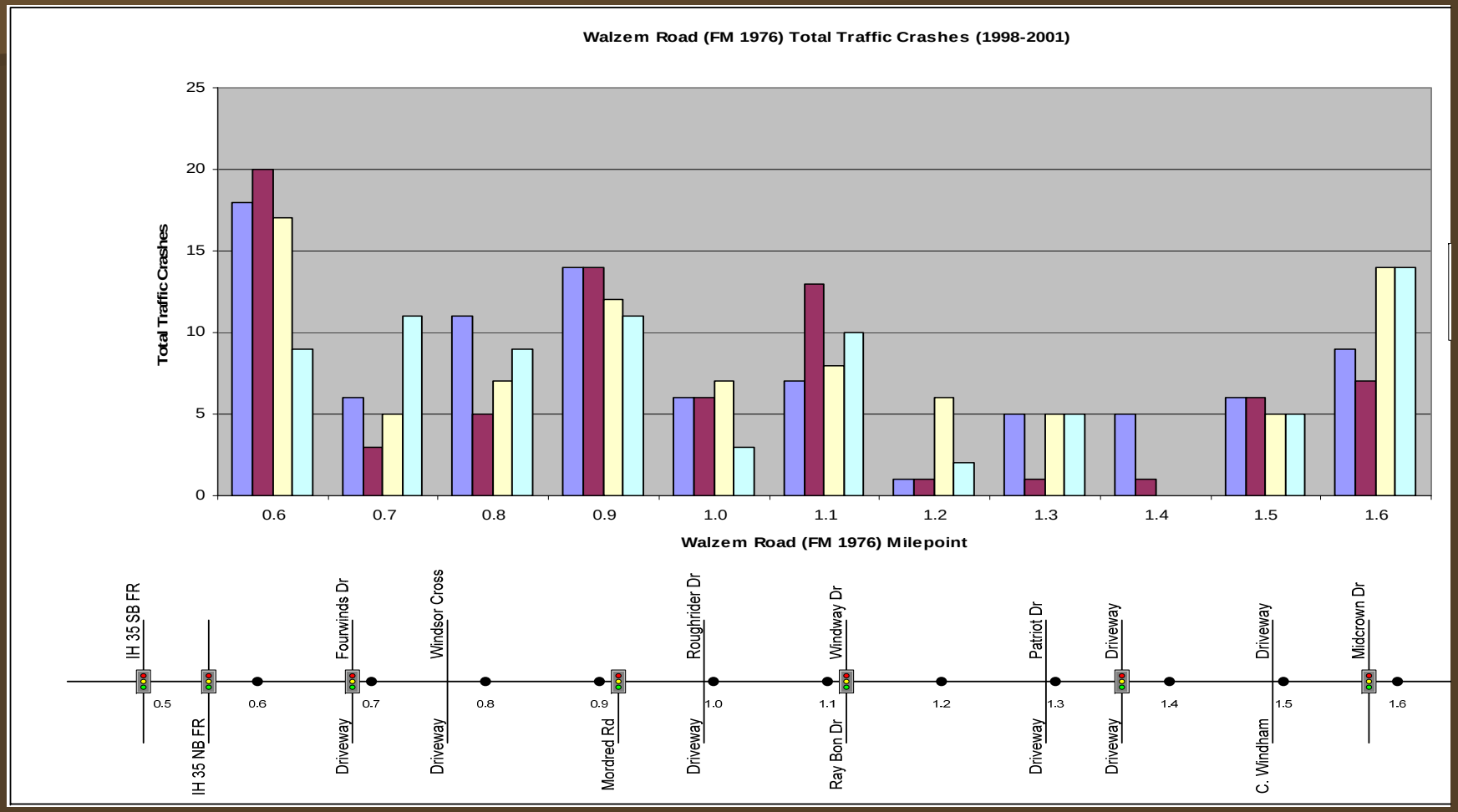
Traffic Congestion

- Backups at major intersections
- Slow speeds and poor intersection level of service
- Primary cause of congestion is the combination of high traffic and turning volumes

Walzem Road Crash History

- Total crashes on Walzem Road between IH 35/410 and Midcrown Drive
  - 1998 – 88 crashes
  - 1999 – 77 crashes
  - 2000 – 86 crashes
  - 2001 – 79 crashes

Walzem Road Total Crashes
IH 35/410 to Midcrown Drive



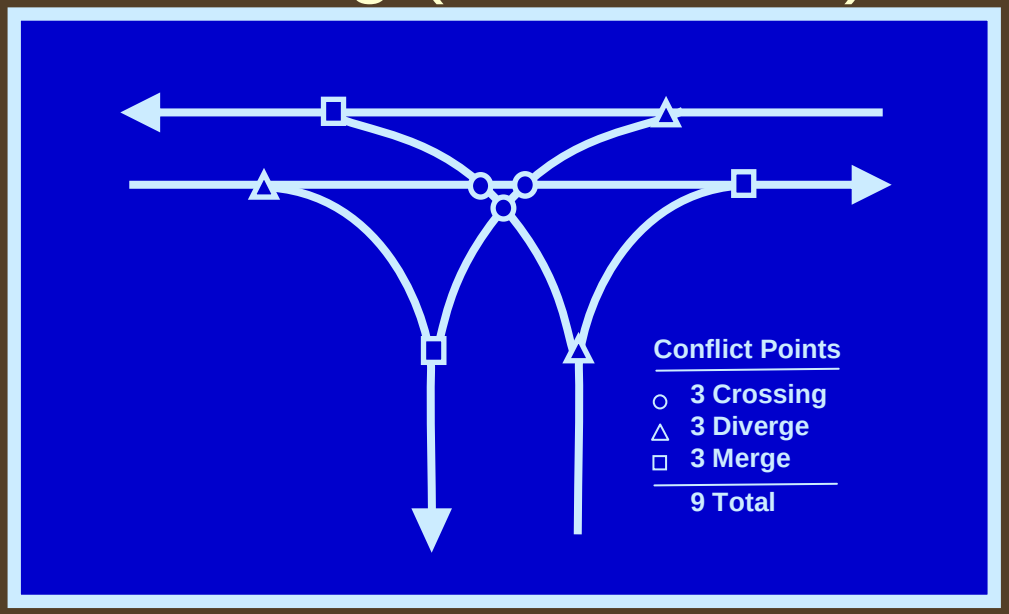
Traffic Crash Summary

- Majority of crashes on Walzem Road are located at or related to intersections and driveways
- Traffic crashes are related to the high traffic volume & turning movements and number of driveways & intersections (access points)

Conflict Points

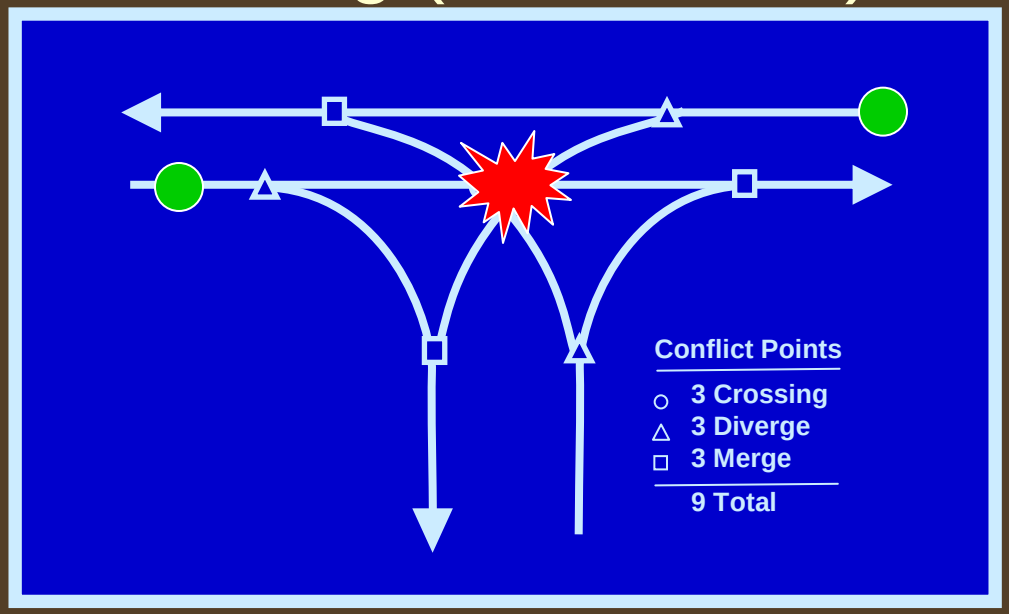
- Conflict points are potential areas where a crash can occur

Existing (No Median)



Conflict Points & Crashes

Existing (No Median)



Access & Conflict Points

- A two-way left-turn lane provides a high level of access... and the highest number of conflict points and most severe crashes
- The study section has over 540 conflict points
- In order to improve safety and reduce crashes, conflict points must be reduced

Access Management

- Provides access to development in a manner that preserves the safety and efficiency of the transportation system
- Improves safety by reducing conflicts
- Improve the appearance and quality of the corridor

Access Management

- Access management includes...
  - Proper driveway and intersection spacing
  - Limited and shared driveway access
  - Turning lanes
  - Raised median treatments
- Plays an important role in reducing crashes and preserving capacity

Business Concerns

- Access Management often raises serious concerns by the business community
- Studies have shown that “destination” businesses are not affected and “pass-by” businesses are not negatively impacted as long as reasonable access is provided

Business Concerns

- Businesses can be hurt by congested, high collision roadways near their entrance
- Customers want safe driving conditions and an appealing market area
- Slow speeds = slow business

More Access Management Information

www.dot.state.tx.us
search: access management

www.accessmanagement.gov

Walzem Road Access Management

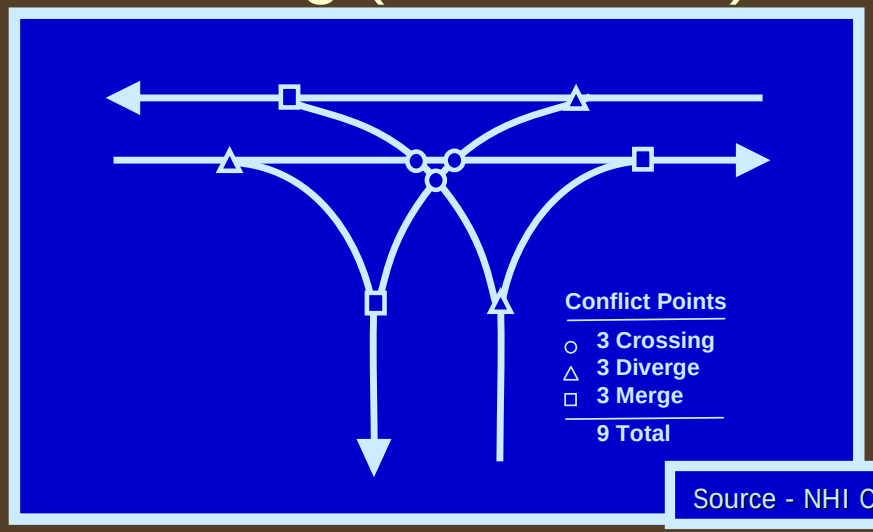
- Walzem Road has limited access management and capacity options
  - Existing street/signal system
  - Built up corridor
  - Limited right of way
- Raised median treatments are the most feasible and the most effective means to improve safety on Walzem Road

Raised Medians

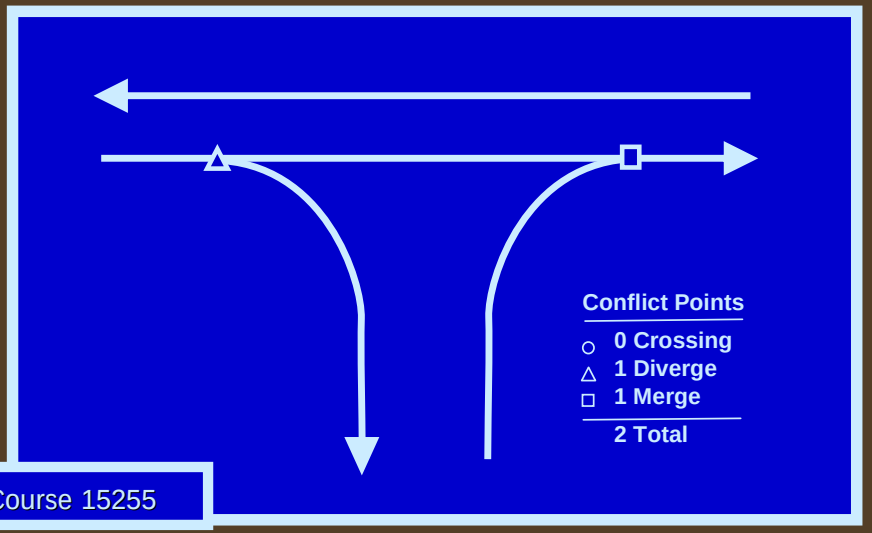
- Research has shown that raised medians minimize conflict points and reduce crashes by an average of 30% and up to 70%
- TxDOT Roadway Design Manual indicates that medians should be considered with daily traffic over 20,000. Walzem Road currently servers 40,000

Conflict Point Reduction

Existing (No Median)



With Raised Median



Source - NHI Course 15255

Proposed Improvements

- The Walzem Road proposed improvements were developed by locating raised medians at high crash locations while maintaining reasonable access and mobility
- The proposed improvements would reduce conflict points in the project area by 55%
- Include operational improvements at IH 35/410

Operational Analysis

- Evaluated
  - Existing conditions
  - Proposed raised median improvements
- Evaluated peak hour traffic
  - Existing traffic volumes
  - Existing plus traffic volumes anticipated by Rackspace development in 2009 and 2012

Traffic Analysis Summary

- Existing conditions, Existing traffic
  - Major delays experienced at IH 35/410
- Proposed improvements, Existing traffic
  - Decrease in total delay from up to 15%
  - Decrease in total travel time by up to 7%
  - Improved intersection level of service

Traffic Analysis Summary

- Rackspace 2009 & 2012 traffic
  - Rackspace site traffic adds a significant amount of traffic demand to Walzem Road, IH 35/410 frontage roads & Fourwinds Drive
  - Proposed improvement will improve operations compared to existing condition
  - Delays will likely be experienced at IH 35/410 and Fourwinds Drive
  - Recommend additional operational improvements

Study Summary

- Proposed improvements provide a substantial reduction in conflict points and should improve safety
- Proposed improvements are anticipated to improve traffic operations for existing and future Rackspace traffic

Study Summary

- Additional operational improvements should be considered by TxDOT, Windcrest and Rackspace to meet the ultimate Rackspace development demand

Raised Median Aesthetics

- Standard “Mission” Theme – Limestone rock stamp pattern
- Other options possible based on local public input

Project Specifics

- Contract Letting: January 2009
- Construction Begins: March 2009
- Construction Duration: ~6 Months
- Construction Cost: ~$500,000

Project Specifics

- Near-term project includes “Orange” Colored elements on Display at tonight’s Meeting
  - Northbound I-35 frontage road to Walzem Road right turn lane
  - Raised Medians on Walzem Road (IH 35 to Ray Bon)

Project Specifics

- “Yellow” elements on display would be constructed at a later date as funding and right-of-way becomes available
  - Right turn lanes at all IH 35 Frontage road intersection approaches
  - Right turn lane at eastbound Walzem approach to Fourwinds
  - One additional lane in each direction at the northbound Fourwinds approach to Walzem Road

Public Comment Period

- Fill out a Speaker Card if you wish to speak
  - Please limit comments to 3 minutes
  - State your name for the record
- Alternatively you may wish to fill out a comment card

Send Comments to:

Jonathan Bean, P.E.
4615 NW Loop 410
San Antonio, TX 78229-0928
jbean@dot.state.tx.us

Or Call:
(210) 615-5825

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